



A **food chain** is a model that shows how energy is passed, in the form of food, from one organism to another. The arrows between the organisms show the direction of energy flow.



The organisms in a food chain can be either **producers**, **consumers**, or **decomposers**.

Producers are green plants capable of making their own food using energy from the sun in a process called photosynthesis.

Consumers are animals that cannot make their own food. They get their energy from other plants and animals. A food chain can have as many as three to four consumers.

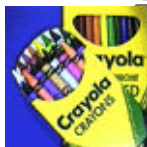
First level consumers feed directly on plants; an example of this would be a mouse.



Second level consumers feed on first level consumers; an example of this would be a rattlesnake that eats the mouse. **Third level consumers** feed on second level consumers; an example of this would be a hawk eating the rattlesnake. **Decomposers** are also unable to make their own food. Bacteria and fungi are decomposers. They break down waste products and dead organisms for food. These broken down materials are returned to the soil to be recycled and used by plants again. An example of this would be a fungus growing on a log. Although decomposers are very important to ecosystems, they are usually not shown on the food chain. Look at the following list of organisms and identify them as either **producers**, **consumers**, or **decomposers**.



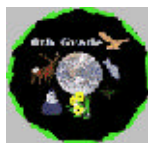
<u>Organisms</u>	<u>Role in food chain</u>
Human	
Deer	
Pine tree	
Bear	
Rabbit	
Bacteria	
Mouse	
Snake	
Wheat	
Fly maggot	
Bluegrass	
Hawk	
Millipede	
Sparrow	
Cat	
Frog	
Algae	
Trout	



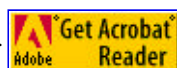
Test your knowledge of food chains by drawing some of your own. Draw and color 3 food chains with four organisms in each. Make your food chains for diverse ecosystems ... the desert, the forest, the plains of Africa, the ocean, the arctic. Be creative. Be sure to include arrows to show the direction of energy flow.



Label each member of the food chain as the producer; or first, second, or third level consumer. Use the scientific method and explore the process a wildlife biologist uses to determine [when the hunter killed a cougar](#).



[Print this page](#) in Adobe Acrobat format.



Visit the [Utah State 8th Grade Integrated Science Core Curriculum Page](#).

Updated August 7, 2000 by: [Glen Westbrook](#)

[Science Home Page](#) | [Curriculum Home Page](#) | [Core Home Page](#) | [USOE Home Page](#)

[Copyright](#) © by the Utah State Office of Education.